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ABSTRACT

A study was conducted to examine the relationship between the amount of conflict in a group decision-making process and the achievement of a quality decision. A task problem given to 33 college students completing a group symposium assignment in a basic public speaking and discussion course called for subjects to choose three possible topics for a group symposium from a list of 11 options. After all taped interaction of the groups was collected, group interaction was coded using B.A. Fisher's Decision Proposal Analysis system to determine the amount of conflict present. In addition, group decisions made on a task were ranked according to quality. Correlated results indicated no significant relationship between the amount of conflict and quality of decision made. (HOD)

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THE EFFECT OF CONFLICT ON THE QUALITY OF GROUP DECISIONS

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THE EFFECT OF CONFLICT ON THE QUALITY OF GROUP DECISIONS

Abstract

This study was designed to determine the relationship, if any, between conflict in a small group and quality of decision made on a task. Group interaction was reliably coded using Fisher's (1970) Decision Proposal Analysis system to determine the amount of conflict present. In addition, group decisions made on a task were ranked according to quality. Correlated results indicate no significant relationship between amount of conflict and quality of decision made.

INTRODUCTION

A large portion of the research in small group communication is focused on the task group, since this type of group is "the most prevalent group in our society" (Fisher, 1980, p. 3). The task oriented group, according to Fisher, is "any one of an enormous variety of groups whose very existence depends on its performing some task" (p. 3). Task activity is "human information-processing functions performed through observable communicative behavior" (Fisher, 1971, p. 140). A group task differs from an individual task in that it requires integrated behaviors of group members and high acceptance and consensus by members. One specific type of task group frequently researched is the decision-making group.

Previous studies on decision-making groups produced several commonalities which most researchers in the speech field accept as true. One of these accepted principles is that conflict is a positive part of the group decision making process. Poole (1981) describes conflict in group decision making as follows:

> Group members disagree over what the correct approach to a problem or subproblem is. They attempt to justify their own positions and argue others points of view. The group is divided into two or more factions and tension rises as a result. Antagonism is often openly expressed or only thinly veiled (p. 4).

Although this description, compiled from definitions of other researchers in the field, appears to have negative connotations, it

describes a process of critical analysis of a problem that contributes to the success of a decision-making group. As Jandt (1973) suggests:

> It has long been recognized that conflict is not inherently pathological or destructive. Its very pervasiveness suggests that it has many positive functions. It prevents stagnation, it stimulates interest and curiosity, it is the medium through which problems can be aired and solutions arrived at (p. 170).

Groups in history who made decisions without critical analysis, or conflict, are the impetus for Irving Janis's theory of Groupthink (1982). Janis defines "groupthink" as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action" (p. 9). The three major symptoms of "groupthink" that groups in history have engaged in are: (1) the overestimation by the group of its power and morality, (2) the closed-mindedness of the group, and (3) the pressures on the group towards uniformity. Characteristics of this third major symptom, pressures toward uniformity, include a lack of conflict among group members. As Janis describes the signs, there is a "self-censorship of deviations from the apparent group consensus" and "a shared illusion of unanimity concerning judgements conforming to the majority view" (p. 175). Janis makes the assumption that "the more frequently a group displays the symptoms, the worse will be the quality of its decisions" (p. 175).

Other researchers also attach value to conflict in groups. King (1981) finds that conflict can enhance "operational effectiveness" by functioning as a "major cause of change" and as a trigger for "innovation and creativity" (pp. 17, 19). Similarly, Fisher (1980) says that group members "who engage in substantive conflict quite

obviously receive the rewards of stimulated critical faculties" (p. 239). Through this increase in critical thinking and participation in the group, members are theoretically performing more productively. Furthermore, greater productivity should result in greater consensus among group members, with members more willing to support a decision they have worked hard to achieve. Conflict, which leads to an increase in productivity and a more easily reached consensus, should be a contributing factor in a higher quality decision. This accepted conclusion, however, has yet to be directly investigated.

The purpose of this study is to further evaluate conflict in the group decision-making process. More specifically, the research examines the relationship between the amount of conflict in a group decision-making process and the achievement of a quality decision.

REVIEW OF THE LITERATURE

One perspective on the small group is the evolutionary view, which considers the movement of a group through the decision-making process. The majority of the literature on group evolution focuses on stages, cycles, and phases of activity in groups. The general findings of these studies show that groups move through sequences or patterns of interaction that can be labeled, hence the categories of stages, cycles, and phases. The underlying theory of progression in groups is the same, but numbers of sequences, labels for sequences, and methodologies used to discover sequences differ. Likewise, evolutionary theories identify a period of conflict during the group's progression, though the labels for this sequence also differ.

Group Stages

Tuckman (1965), in an ex post facto study, looked at 50 articles dealing with group development over time to form a framework for classification. For task-activity groups, Tuckman identifies four stages of development: (1) orientation to the task or "forming," (2) emotional response to task demands, or "storming," (3) open exchange of opinions, or "norming," and (4) emergence of solutions, or "performing."

Responding to this "static" view of cetegorization of group responses is Scheidel and Crowell's (1964) cyclical model. Through categorization of the interaction of five groups, these researchers found that a "new paradigm" can be developed "to illustrate the process of idea development in group discussion" (p. 145). The data gathered from this analysis led the researchers to propose a "spiraling model for group problem solving," (1964, p. 145) contrary to the linear discussion model of Tuckman.

Group Phases

Though the difference may be only in the label, the literature on phases of group decision-making is most prevalent. The classic study is the Bales and Strodtbeck (1951) research which examined 22 case studies of groups. Of these cases, Bales and Strodtbeck found eight groups that moved through the three phases that they identified as orientation, evaluation, and control. More importantly, this study gave to the field the first categorization system that can be used to observe group decision-making processes: Bales Interaction Process Analysis system.

Another study of phases was done by Mabry (1975). Observation and analysis of thirty groups revealed four phases of task group development: latency, adaptation, integration, and goal attainment. Mabry labeled his model the Pattern Variable Model, and his focus was on themes occurring during the four phases. During latency, "group members attempt to orient themselves to one another and the situation" (p. 68). In the adaptation phase group members focus their efforts of working through the task. Conflict takes place during the integration phase, with group members taking positions on issues and evaluating others' positions. Finally, goal-attainment is the point at which groups mobilize their resources and "attempt to formulate one acceptable solution" (p. 69). Mabry also created a coding system for his observations called the Pattern Variable coding system which grouped types of interactions occurring during one-minute intervals according to theme.

Fisher's (1970) research also uncovered phasic movement in small groups, based on the interaction that occurred. The first phase, orientation, is a general period of getting acquainted. Phase two, conflict is the period of dispute and disagreement. Phase three is labeled "emergence" and is said by Fisher to be "the most crucial stage in the group process of decision making," (1980, p. 148) during which a decision emerges from the discussion. Fisher concludes that not all groups in all situations will have four phases of decision making. His study does, however, show further "that the interaction patterns of task behavior follow a consistent pattern of progression across time as groups make decisions despite the presence of social variables idiosyncratic to specific groups" (1970, p. 65).

Multiple Sequences

Bales three-phase progression and Fisher's four phase process spurred recent research on groups by Poole (1981, 1983). Though Poole does not deny the existence of phases, he proposes a "multiple sequence model" that shows different groups following different developmental sequences of decision making, rather than all groups progressing through phases in the same order as the Bales and Fisher models presume. Poole identifies five phases that groups might move through: orientation, conflict, coalescence, development, and integration. Coding of the interaction of the groups supported Poole's contention that a multiple sequence pattern existed. All Poole's groups did not move through the same developmental phases in the same order, as the unitary models suggest. Poole does not suggest, however, the abandonment of unitary models such as those of Bales and Fisher. He concludes that the "unitary sequence could . . . serve as a 'baseline' which is altered and diversified in different ways by different groups" (1981, p. 20).

Poole's second study, published in 1983, built on the results of his original research. His objective was to form his previous findings on multiple sequences into a description analysis system for identification of multiple sequence development patterns. In addition, Poole conducted an empirical study of multiple development groups focusing on three areas: conflict, idea development, and content themes. To create his Multiple Sequence Description System (MSDS), his first objective, Poole identified phases through the occurrence of "theoretically-meaningful clusters of interacts" (1983, p. 212) based on analysis systems developed by Bales and Fisher. The analysis of these clusters of interaction provided data for one of Poole's second purposes, an

empirical study of conflict. Poole found that patterns of conflict in groups can be divided into short-term and long-term patterns. Short-term patterns "serve as the building blocks of group decision sequences" and provide for "microscopic analysis of decision making discourse" (p. 221). Long-term patterns, in contrast, allow for more detailed analysis and could possibly serve as dependent variables in future research. Poole concluded that looking at patterns of conflict allows the researcher "to rise above exchanges between individuals and consider conflict as a phenomenon of the group as a whole" (p. 224). In addition, the occurrence of both long- and short-term conflict phases during one group's development further supported Poole's argument for a multiple sequence alternative.

Group Conflict

In his 1983 study, Poole suggested that identification of multiple phases of conflict could lead to an increased understanding of how conflict can be managed by groups, though he stated, "Unitary models, as well as general discussions of group decision processes, have long stressed the importance of conflict in decision making" (p. 208). Prior to Poole's work, the majority of the literature available on the conflict phase centered around the description of conflict, rather than the handling of it. In a 1954 article, Guetzkow and Gyr distinguished between "at least two types of conflict--conflict rooted in the substance of the task which the group is undertaking, and conflict deriving from the emotional, affective aspects of the group's interpersonal relations" (p. 369). They later labeled these types substantive and affective conflict.

Working with these two types of conflict as a frame of reference, Knutson and Kowitz (1977) studied the effects of substantive and affective conflict on the level of consensus achieved by a group. In addition to discovering the perceived consensus of groups in conflict, Knutson and Kowitz proposed three dimensions of conflict: informational activity (data analysis), procedural activity, and interpersonal activity. Informational activity "includes data input, empirical analysis, and logical analysis with respect to the task at hand" (p. 61). Procedural behavior encompasses activities performed by a leader such as directing action, delegating, and setting goals. Interpersonal activity includes "the attitudes and interpersonal perceptions the group members hold toward one another"(p. 62) which influence levels of cooperation and friendliness. They concluded that this three-dimensional approach to conflict "permits a more precise treatment of the definition of conflict in decision-making groups than the widely accepted substantive-affective dichotomy" (p. 62).

Ellis and Fisher (1975) also described conflict in terms of dimensions in their study, but focused more on conflict as a "process variable," and thus labeled conflict in phases. Three phases emerged from the research: interpersonal, confrontation, and substantive. Phase one, interpersonal conflict, results because of "individual differences" (p. 207). Conflicts are grounded on individual opinions rather than on issues of importance to the group task. Confrontation is the label for phase two, a heightened period where members seek more information and support for their own opinions. Fisher and Ellis describe phase three as "the conjunction of conflict and agreement" (p. 208) in the group decision making process. Group members seem to

be changing their attitudes and moving towards consensus, though some disagreement remains. Ellis and Fisher concluded that phase three, labeled substantive conflict, is the most common type in task groups and in greatest need of conflict management techniques. Similarly to Poole (1983), Fisher and Ellis suggest that future studies "consider conflict a norm of group interaction and work toward a more explicit understanding of conflict" (p. 210), rather than the elimination of conflict from the decision-making process.

Group Conflict and Quality Decisions

Only three researchers focus their attention on the relationship between phases of group development and the achievement of quality decisions. Hirokawa (1983) addressed the research question, "Can successful problem-solving groups be distinguished from less successful problem-solving groups on the basis of phases that characterize their problem-solving interaction?" (p. 292). Coding of Hirokawa's results revealed multiple sequences, as Poole (1981) discovered, with no pattern found to characterize the "successful" group.

Two other researchers look more specifically at the relationship of the conflict phase to the achievement of a quality decision. Courtright (1978) observed 24 groups to see if "the poor quality of communication involved in the decision-making process greatly increases the probability that the groups will produce an inferior or faulty solution to the problem" (p. 243). Courtright concurred with Janis's (1982) theory of "groupthink" that "the presence or absence of disagreement (conflict, hostility) among group members may be the best discriminator between groupthink and non-groupthink groups" (p. 229).

His findings supported the long held opinion that successful groups are those "which utilize differences of opinion as a critical springboard to fully analyze and discuss the positive and negative ramifications of each proposed solution" (p. 246).

Bell's (1979) research is based on the same premise as that of Janis and Courtright, "that conflict of ideas contributes to the quality of the emerging synthesis of ideas" (p. 76). More specifically, Bell's study measured "the impact of conflicting substantive (rational) and affective (irrational) verbal communication for both sexes on both the quality of the final decision and the flexibility of the group members during their deliberations" (p. 77). The results of Bell's study do not support the assumption of small group researchers that consensual agreements, or those reached through substantive conflict are also "good" solutions to problems. She calls for further research on groups communicating in face-to-face situations to test the generalization "that a major determinant of group performance is the degree to which information can be exchanged among the members of the group" (p. 82).

In summary, although the research on small group communication identifies conflict as a part of group development, the effect of conflict on the quality of decisions remains unclear. This study examines the assumption that conflict leads to quality decisions. The specific research question for the study asks, "What is the effect of conflict on the quality of a group decision?" The null hypothesis is: The presence of substantive conflict in the process of group decision making does not lead to quality decisions.

METHODS

The research questions the hypothesis of this study called for subjects who were involved in group decision making to provide the data for analysis. Therefore, the sample consisted of 33 zero-history groups of students completing the group symposium assignment in a basic public speaking and discussion course at a western university.

The task problem selected for discussion was similar to that used in Poole, McPhee, & Siebold's (1982) study of groups and was chosen for its applicability to the curriculum of the basic course. The problem called for subjects to choose three possible topics for a group symposium from a list of eleven options (Appendix A). As the authors describe the problem:

> In terms of Shaw's task dimensions, this task was high in difficulty and solution multiplicity. It was designed to maximize involvement in the group discussion: in addition to being intrinsically interesting, the task also had real consequences for the subjects and there was some time pressure (p. 9).

In addition, the task also meets Shaw's three other task dimensions: cooperation requirements, intellectual-manipulative requirements, and population familiarity. The problem requires "integrated action of group members" and mental activities for task completion (Shaw, 1981, p. 364). Likewise, it meets the requirement for population familiarity since the subjects for this study had similar experiences choosing topics for their prior assignments in the basic course.

The eleven topic options forming the list were randomly drawn from a larger group of student-generated topics. A committee of three instructors of group communication supervised the formation of the list, insuring that of the eleven options, three would be superior topics and

thus constitute a quality decision on the task. The committee used five criteria for superior topics established in the Speech Coursebook (Pendell & Vancil, 1983) to reach their decision. These five criteria are: (1) the topic should be broad enough to provide ample research material; (2) the topic should be significant to the audience; (3) the topic should contain opposing "pro" and "con" viewpoints; (4) the topic should be a question of policy; and (5) the topic must involve a change from the status quo. The subjects in the study were familiar with these criteria from previous assignments in the basic course.

For purposes of analysis, a high quality decision on the task was reached if the group members chose the same three topics as the committee of instructors. This high quality decision consisted of the topics: Pre-trial Publicity, Drug Abuse, and Japanese Imports. Choosing two of the three best topics was considered a medium-quality decision, and choosing one of the three best topics was a low-quality decision. All other decisions reached by groups were considered non-quality decisions for the purposes of this study.

After all taped interaction of the groups was collected, topics chosen by the groups as the best topics for a group symposium were taken from the audio tapes of each group and evaluated as high, medium, low, or non-quality decisions. Each group's taped interaction was then examined using Fisher's (1970) Decision Proposal Analysis system. Fisher's category system was chosen because it was used in identification of conflict as a phase of group decision making (Fisher, 1970). Poole and Folger (1981) noted this conflict-identification feature of Fisher's coding system and found that Fisher's scheme "had a greater degree of representational validity for decision-making interaction"

(p. 38) than other coding systems such as Bales (1951) and Mabry (1975). In addition, the Decision Proposal Analysis system was used specifically by Ellis and Fisher (1975) to identify the interaction associated with the conflict phase.

The taped data were analyzed to see how much substantive, or task-oriented, conflict was present in the group decision-making process. For the purposes of this study, conflict was defined according to the interaction of Decision Proposal statements. Coding of statements was based on a version of the Decision Proposal Analysis system compiled from Ellis and Fisher's (1975) analysis of conflict and DeStephen's (1983) coding of consensus groups.

Three coders were used to gain reliability of the coding system. Reliability was determined by Guetzkow's (1950) formula and included: .9304 for raters 1 and 3; .8884 for raters 1 and 2; and .9069 for raters 2 and 3. The mean reliability was .9086. Reliability was based upon the coding of the same 147 acts, the complete interaction of one group's decision-making process, into Fisher's eight categories by all raters. After the initial reliability check, all coding used in the data analysis was performed by rater 1. All coding of statements was done from the audio tapes.

After each statement was categorized, the total number of conflict interacts were counted for each group. The mean and standard deviation of conflict interacts for all groups was then computed (Guilford & Fruchter, 1973, p. 107). Groups were ranked as having high, medium, or low levels of conflict based on plus or minus one standard deviation from the mean. Group rankings for level of conflict and group rankings

for quality of decision were then compared using Kendall's tau rank correlation coefficient (adjusted for ties) (Hayes, 1973, pp. 797-800) to determine the strength of the relationship between conflict and quality. Thus, the research question regarding the effect of conflict on the quality of a group decision was answered.

RESULTS

To answer the research question regarding the effect of conflict on the quality of groups decisions, results were obtained in two areas: the quality of decision made by the groups on the assigned task and the number of conflict interacts of each group during the decision-making process.

Quality of Decision

Each group's choice of three topics from the list of eleven options was obtained from the audio tapes of the decision-making processes. The high quality decision on the task was not achieved by any of the thirty-three groups. Five groups made a medium quality decision by choosing two of the three quality topics, and 18 groups made low quality decisions by choosing one of the three quality topics. Ten groups made non-quality decisions by choosing topics other than the three quality topics. For the benefit of correlation with the conflict interacts, a medium quality decision was ranked as 2, a low quality decision ranked 1, and a non-quality decision was assigned 0. The mean of all groups was .84, equating to a low quality decision on the task.

Conflict Interacts

The decision-making interaction of each of the thirty-three groups was coded according to Fisher's Decision Proposal Analysis system. After coding all acts, the number of interacts representative of conflict were counted for each group. The mean of conflict interacts for all groups was 2.87, and the mean of conflict interacts for groups with conflict was 3.13. The standard deviation of groups with conflict interacts was 2.46. Based on plus or minus one standard deviation from the mean, each group's conflict was ranked as high (3), medium (2) or low (1). The minimum number of conflict interacts for high conflict groups was 5.59, and four groups fell into this category. The maximum number of conflict interacts for low conflict groups was .67 (rounded to 1), and six groups were ranked as having low amounts of conflict. In addition, three groups had no conflict interacts and were ranked as 0. The remaining twenty groups were ranked as having medium amounts of conflict.

Correlation of Variables

In order to test the null hypothesis, a correlation was calculated between rank of quality of decision and rank of amount of conflict using Kendall's tau rank correlation coefficient (Table 1). This statistic was adjusted to account for the tied ranks of both variables (Hayes, 1973, pp. 797-800). The observed tau value was .1419. To test for significance, tau was converted to a Z score which equalled 1.161. The relationship between the independent and dependent variables is not significant, so the null hypothesis is not rejected.

TABLE 3

Kendall's Tau Rank Correlation Coefficient

Group	Quality Rank	Conflict Rank	X_1	Y_1
A-2	2	2	3	14.5
B-2	2	2	3	14.5
B-3	2	2	3	14.5
B-4	2	3	2	2.5
G-1	2	2	3	14.5
A-1	1	3	14.5	2.5
A-3	1	1	14.5	27.5
A-4	1	2	14.5	14.5
A-5	1	2	14.5	14.5
B-1	1	3	14.5	2.5
B-5	1	1	14.5	27.5
C-1	1	2	14.5	14.5
C-4	1	0	14.5	32
D-1	1	1	14.5	27.5
D-2	1	2	14.5	14.5
D-4	1	2	14.5	14.5
E-2	1	1	14.5	27.5
E-3	1	2	14.5	14.5
E-4	1	0	14.5	32
F-1	1	2	14.5	14.5
F-4	1	2	14.5	14.5
G-3	1	2	14.5	14.5
G-4	1	2	14.5	14.5
C-2	0	2	28.5	14.5
C-3	0	3	28.5	2.5
D-3	0	2	28.5	14.5
E-1	0	2	28.5	14.5
F-2	0	1	28.5	27.5
F-3	0	0	28.5	32
G-2	0	1	28.5	27.5
H-1	0	2	28.5	14.5
H-2	0	2	28.5	14.5
H-3	0	2	28.5	14.5

Tau = .1419

CONCLUSIONS

This study addressed one research question: What is the effect of conflict in a group decision-making process on the achievement of a quality decision? The results indicate that no statistically significant relationship exists between amount of conflict and quality of decision. These findings do not support the commonly held view of authors in the field of small group communication that conflict is a necessary part of the decision-making process.

A more specific relationship suggested in small group literature is that between substantive conflict and quality of decision. Substantive conflict is "conflict rooted in the substance of the task which the group is undertaking" (Guetzkow and Gyr, 1954, p. 369). Fisher (1980) says that since substantive conflict serves "as a stimulus to critical thinking and stimulates members to test their ideas," the decisions that result from this conflict "are probably of higher quality" (p. 239). This study does not support Fisher's association, although the type of conflict the groups experiences was clearly substantive. No affective conflict, or "conflict deriving from the emotional affective aspects of the group's interpersonal relations" (Guetzkow and Gyr, 1954, p. 369), is apparent in the interaction. Members were assigned to groups immediately before the task, and thus did not have adequate time to form interpersonal relationships.

This lack of time may also be a reason why there were no clear conflict phases in the groups as identified by Fisher (1970). Of the thirty groups who had conflict, only six had instances where one conflict interact was followed directly by another. Fisher defines a phase as "the proportional fluctuation of interaction units . . .

toward the decision proposals" (p. 56), yet two interacts hardly seem to constitute this distinction. If one or two interacts of conflict does indicate a phase, then the activity of the groups in this study supports Poole's (1981) findings of a "multiple sequence model." In Poole's model, "the group takes different paths depending on the ensemble of conditions at a given point in the problem-solving process" (pp. 2-3). As indicated in Poole's later study (1983), conflict might occur at more than one time during a group process, taking the form of either a short-term or long-term pattern. Poole's three types of short-term patterns of conflict seem most descriptive of what occurred in this study. In pattern one, groups have trouble making a consensus decision, "resulting in halting, fragmented idea development with many rejoinders" (p. 219). Pattern two characterizes a group which goes through repetitive cycles of conflict, each ending in negotiation. Groups in pattern three have a single instance of conflict followed by "a period of idea development" (p. 220). Although the purpose of this study was not to examine the conflict interaction itself, the occurrence of only short periods of conflict may have effected the quality of decisions reached.

Other underlying factors need to be considered in the interpretation of the results of this study. Were conditions present that may have effected the amounts of conflict present in the groups' decision-making processes and thus the quality of decision that was made? These conditions to be considered constitute both limitations of this research and potential areas where future research is warranted.

One underlying factor that could have effected conflict and the resulting quality of decision was the method of operation used by the

groups in solving the task. Because the task for discussion (Appendix A) was a list of eleven topic options, the researcher assumed that there would be eleven decision proposals discussed by each group as they attempted to choose the three best topics. However, such was not the case; the mean number of decision proposals discussed by all groups was 9.97. Fisher (1980) explains the effect of the number of decision proposals, or ideas, on the quality of group decisions in the following manner:

> Some evidence has indicated that the quality of group decisions increases in proportion to the number of ideas members generate during group interaction. This may be true, but there is certainly a point of diminishing returns . . . The group's limitations on the amount of information it can identify may explain why some research studies indicate no significant increase in the quality of final group decisions when members did generate more ideas (p. 83).

Hirokawa (1982) seems to disagree with the results of this failure to generate ideas and says that "when groups approach a task in a systematic and rational manner, they tend to consider all feasible alternatives" and then choose the most correct decision "in light of the alternatives" (p. 413). Hirokawa calls this "rigorous decision-making" and implies that this process results in the most valid decision. Janis (1972) also assigns value to the consideration of a "full range of alternatives" (p. 10), citing the failure to do so as a major cause of "groupthink." Since no high quality decisions were reached in this study, the value of considering every decision proposal is difficult to estimate, although the lack of consideration of some topics may have resulted in smaller amounts of conflict and a lower quality decision in some groups.

The limited time period (15 minutes) could have been a contributing cause to the amount of conflict in a group and the group's method of operation; however, no group chose to use the entire time period. Discussion lengths ranged from 1.5 minutes to 12.5 minutes (all times rounded to half-minutes), with a mean length of 6.32 minutes. Hirokawa (1980) supports this apparent lack of need for time for discussion, particularly on a task which requires rating of items. He suggests, "contrary to what many small group communication texts assert, spending time developing and substantiating facts, ideas, and opinions is not always necessary for effective group decision-making" (p. 320). Interesting findings result when the quality of decision is compared to the amount of time spent by the groups in the decision-making process in this study. Groups making medium quality decisions averaged 8.5 minutes on the task; low quality decision groups spent 5 minutes on the task, yet groups who made non-quality decisions used 7.5 minutes on the task. The taped interaction of the groups does not reveal any apparent pressures to complete the task within the allotted time period, which may account for the low levels of conflict in some groups. As Rosenfeld (1973) states, The greater the pressure for a quick decision, the greater the probability that conflicts will arise" (p. 218). Rosenfeld explains further, "The degree to which group members can work smoothly and efficiently to solve the practical problems raised by time consideration determines the degree to which they can avoid major conflicts" (p. 218). Hirokawa (1983) supplements this idea by stating that "'successful' problem-solving requires that the group make the most of the time available to them" (p. 304).

Another potential cause of conflict in groups is the criteria used in evaluation of the problem. As Rosenfeld describes this process, the group "must develop a system whereby it can evaluate whether a decision or solution is right or wrong, good or bad, for the group" (p. 220). He sees further conflict developing when choices are made prematurely before these criteria are established. Other researchers in the field of small group communication agree with this assessment. Courtright (1978) discovered in his laboratory investigation of "groupthink" that

> High quality decision making . . . is derived from the ability to discriminate between potentially good solutions and those which are potentially inferior or faulty. Such discrimination implies the application of some set of critical standards (p. 245).

A study by Hirokawa and Pace (1983) concurs with the findings of Courtright concerning the application of established evaluation criteria. Hirokawa and Pace report that "groups which failed to arrive at high-quality decisions did not make a conscientious attempt to determine whether their alternative choices met their established criteria" (p. 377). The present study employed an evaluation criteria method referred to as "no pattern analysis form" by Larson (1969). Essentially this method entails leaving the groups to their own devices, theoretically duplicating conditions which exist when groups deliberate with no systematic analysis form governing their deliberations" (p. 453). No specific criteria to use in choosing topics were given to the groups in this study in order to make the results more generalizable to all small groups, yet the researcher assumed that the groups would use the criteria of the committee from the Speech Coursebook (Pendell and Vancil, 1983) which the group members learned earlier in their coursework. Analysis of the taped

interaction of the groups revealed that the criteria used by the groups in choosing their topics differed slightly from that used by the committee in deciding the quality decision on the task. The five most frequently mentioned criteria of the groups in choosing topics were: (1) quantity and quality of information (research) available on the topic (mentioned 59 times), (2) existence of two clear opposing viewpoints on the topic (37 mentions), (3) interest of the audience in the topic (33 mentions), (4) broadness of the topic (e.g., the topic was too large for the group to consider) (33 mentions), and (5) interest of the individual group members in the topic (32 mentions). Other criteria mentioned by group members were (in order of frequency): overuse of the topic, similarity of the topic to others used in class, lack of problem with the topic, lack of policy focus of the topic, difficulty of the topic, lack of understanding about the topic, specificity of the topic, lack of a consensus favoring the topic, instructor's dislike of the topic, originality of the topic, and positive focus of the topic. Of the five criteria most frequently mentioned by the groups, three correlate directly with the committee's criteria: information available on the topic, opposing "pro" and "con" viewpoints on the topic, and interest of the audience in the topic. The committee's criterion that the topic be a question of policy, rather than a question of fact or value, is not one of the groups' top five criteria, nor is the committee's criterion of the topic involving a change from the "status quo." The groups replaced these criteria with one involving their personal interest in the topic and one rating the broadness of a topic. The committee would be unaware of the group's "personal interest" criterion; however, this standard may have effected

the choices made by the groups on the task. Because of the wide variety of criteria expressed by group members in making their decisions, more time may have been spent evaluating criteria rather than applying criteria in order to make the best decision on the task.

Whether using the five criteria of the committee or the five most mentioned criteria of the groups, the results show that all groups were unable to make a high quality decision on the task. This lack of high quality raises the suspicion that perhaps the committee was wrong in their choice of the three best topics for a group symposium. The three topics most frequently chosen by the groups were: computer literacy (chosen by 20 groups), pre-trial publicity (17 groups) and fragmentation of the family structure (10 groups). Of these three, only pre-trial publicity was picked by the committee as part of a high quality decision. Even if the groups' top three choices are considered the high quality decision, a high quality decision still was not achieved by any group. With computer literacy, pre-trial publicity, and fragmentation of the family structure as the high quality decisions, fifteen groups made medium quality decisions, seventeen groups made low quality decisions, and one group made a non-quality decision. The number of medium quality decisions rises considerably using the groups' top choices, yet a high quality decision remains unattained.

One final cause of substantive conflict in groups, is the physical problems that groups must overcome in order to make their decision. This includes the situation, the given time of the study, and the composition of the groups. Certainly the decision-making situation must be considered as a limiting factor anytime research is done that attempts to replicate actual group interaction in a laboratory-type

setting. Although great care was taken with the choice and presentation of the task in this situation, the presence of the researcher and the audio tape recorders in the groups' classrooms may have had an adverse effect on this study. As Bormann (1970) explains, "Subjects in a small-group communication laboratory will tend to fulfill the expectations of the investigators in those short-term transitory situations where they participate briefly in an experimental group discussion (p. 213). The audio tapes do not reveal any interaction that indicated the groups were trying to do what they felt the investigator wanted them to do, but the presence of a stranger in their classroom might have prompted this response unconsciously. Likewise, the time when the study occurred may have been a factor in the insignificant results. The group symposium assignment takes place at the end of the basic course, and the students may have been apathetic in choosing further topics for discussion. One element of the study that does not appear to have had an effect on conflict or the resulting quality decision is the composition of the group. As Philp and Dunphy (1959) discovered, the sex of the group members does not play a role in the occurrence of phases, such as the conflict phase. Groups composed of all males, all females, and mixed groups participated in the study, yet no specific type of group had more conflict or made better quality decisions. In addition, no size of group did better than other groups, although groups ranged in size from three members to five members.

A number of questions remain unanswered by this research, providing guidelines for future researchers interested in the relationship between conflict and the quality of decision. Replicating this study using a different task and/or different criteria for evaluation

of quality might prove interesting, for the possibility remains that conflict does have an effect on the quality of decisions. In addition, a replicated study using a different interaction analysis system might also prove beneficial in determination of how much conflict occurs in groups. The conflict that does occur in groups warrants further description in comparison with Poole's (1983) analysis of short- and long-term patterns of conflict and Ellis Fisher's (1975) study of the phases of conflict. Analysis of conflict interaction exclusively was not part of the purpose of this research, but this area may deserve consideration as a factor effecting the quality of decisions. In addition, more definition of what constitutes a sequence or phase of group development seems necessary in order to support either Fisher's (1970) phases of group development or Poole's (1981) multiple sequence alternative, both which cite conflict as an important part of group decision-making.

As long as there are group decision-making processes, the question of the value of conflict in the group will continue to be raised. Although this research shows no significant relationship between conflict and quality of decision, other factors related to conflict remain untested and thus pose a worthwhile challenge to those interested in research in the small group communication field.

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APPENDIX A

TASK FOR STUDY

Choose the three best topics for a group symposium

What should be done about the problem of:

drug abuse

gun control

specific college curriculums vs. broad/general programs

Japanese imports

the drinking age in Colorado

old buildings

drug use in race horses

fragmentation of the family structure in America

welfare

requiring computer literacy for all college students

pre-trial publicity